CLAIMS

What is claimed is:

- 1 1. A method for forwarding data packets to one of a plurality of servers comprising:
- 2 receiving a data packet from a source at a data packet forwarding device having a
- 3 plurality of ports;
- 4 performing a hashing function using a unique component of the data packet as a seed
- 5 value for the hash;
- 6 generating a hash value using the hashing function;
- 7 looking up a table for address information of one of the plurality of servers using the
- 8 hashed value as an index to the table; and
- 9 forwarding the data packet to a server using the address information obtained from the
- 10 table.
- 1 2. The method of claim 1, wherein forwarding the data packet to a server
- 2 corresponding to the address comprises forwarding subsequent data packets from the
- 3 source to the server using the hashing function.
- 1 3. The method of claim 1, wherein generating a hash value using the hashing
- 2 function comprises generating a hash value using at least one parameter from a group
- 3 consisting of a Transmission Control Protocol source port number, Transmission Control

- 4 Protocol destination port number, an Internet Protocol (hereafter IP) source address and
- 5 an IP destination address in the hash function.
- 1 4. The method of claim 1, wherein forwarding the data packet to a server using the
- 2 address information obtained from the table comprises searching a table for the address
- 3 information of the server using the hash value generated by the hashing function and
- 4 forwarding the data packet to the server.
- 1 5. An article of manufacture comprising:
- 2 a machine-accessible medium including instructions, that when executed
- 3 by a machine, cause said machine to perform operations comprising
- 4 receiving a data packet from a source at a data packet forwarding device having a
- 5 plurality of ports;
- 6 performing a hashing function using a unique component of the data packet as a seed
- 7 value for the hash;
- 8 generating a hash value using the hashing function;
- 9 looking up a table for address information of one of the plurality of servers using the
- 10 hashed value as an index to the table; and
- forwarding the data packet to a server using the address information obtained from the
- 12 table.

- 1 6. The article of manufacture of claim 5, wherein said machine-accessible medium
- 2 further includes instructions that when executed by the machine, cause the machine to
- 3 send subsequent data packets from the source to the server using the hash function.
- 1 7. The article of manufacture of claim 5, wherein said machine-accessible medium
- 2 further includes instructions that when executed by the machine, cause the machine to
- 3 generate a hash value using at least one parameter from a group consisting of a
- 4 Transmission Control Protocol source port number, Transmission Control Protocol
- 5 destination port number, an Internet Protocol (hereafter IP) source address and an IP
- 6 destination address in the hashing function.
- 1 8. The article of manufacture of claim 5, wherein said instructions for forwarding
- 2 the data packet to a server using the address information obtained from the table, includes
- 3 further instructions to cause the machine to search the table for the address information of
- 4 the server using the hashed value generated by the hashing function and to forward the
- 5 data packet to the server.
- 1 9. An apparatus comprising:
- 2 means for receiving a data packet from a source at a data packet forwarding device
- 3 having a plurality of ports;
- 4 means for performing a hashing function using a unique component of the data packet as
- 5 a seed value for the hash;
- 6 means for generating a hash value using the hashing function;

- 7 means for looking up a table for address information of one of the plurality of servers
- 8 using the hashed value as an index to the table; and
- 9 means for forwarding the data packet to a server using the address information obtained
- 10 from the table.
- 1 10. The apparatus of claim 9, wherein means for forwarding the data packet to a
- 2 server corresponding to the address comprises means for forwarding subsequent data
- 3 packets from the source to the server using the hashing function.
- 1 11. The apparatus of claim 9, wherein means for generating a hash value using the
- 2 hashing function comprises means for generating a hash value using at least one
- 3 parameter from a group consisting of a Transmission Control Protocol source port
- 4 number, Transmission Control Protocol destination port number, an Internet Protocol
- 5 (hereafter IP) source address and an IP destination address in the hash function.
- 1 12. The apparatus of claim 9, wherein means for forwarding the data packet to a
- 2 server using the address information obtained from the table comprises means for
- 3 searching a table for the address information of the server using the hash value generated
- 4 by the hashing function and forwarding the data packet to the server.